INFORMATION REPORT

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COUNTRY	Yugoslavia
SUBJECT	Construction of Diesel Engines for Airplanes
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1. Diesel engines for airplanes are planned and constructed in the separate section of the construction department of the Rakovica motor factory. Engineer Bloudek heads this section. He is known as the designer of the sport-type Lojze airplane, capable of a speed of 180 kilometers per hour.

2. The first series of 25 diesel engines for airplanes was finished in October 1949. The second series of 52 engines is currently in production.

3. The machines and installations for the production of these engines were procured from the Skoda factory of Czechoslovakia and the Krupp factory in Germany before the Tito-Cominform break. The single parts for these motors are made in other Yugoslav factories such as Rade Koncar, Litostroj, Djuro Djakovic, Prvomajska and Tam.

4. Bloudek's diesel engines for airplanes are two-cycle and similar to the Junkers' diesel engines. His study for the construction of these motors is based on the following factors:

   a. Weights of the engine and fuel for a one-hour flight:

      1) Weight of the 700 h.p. gasoline engine - 420 kilograms. Gas consumption rate equals 1/4 kg/h.p./h, therefore an hour's consumption equals 175 kilograms. Total weight at take-off - 595 kilograms.

      2) Weight of the 700 h.p. diesel engine - 570 kilograms. Naphtha consumption rate equals 150 gr/h.p./h, therefore an hour's consumption equals 105 kilograms. Total weight at take-off - 675 kilograms, which indicates that the gasoline engine plus fuel is lighter at short distances.

   b. Weights of the engine and fuel for a ten-hour flight:

      1) Weight of the 700 h.p. gasoline engine - 420 kilograms. Gas consumption rate equals 1/4 kg/h.p./h, therefore ten hours' consumption equals 1,750 kilograms. Total weight at take-off - 2,170 kilograms.

2) Weight of the 700 h.p. diesel engine - 570 kilograms. Naphtha consumption rate equals 150 gr/h.p./h, therefore ten hours' consumption equals 1,050 kilograms. Total weight at take-off - 1,620 kilograms, which indicates that the diesel engine is more economical for long distances.